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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/669,418	09/25/00	DULEBOHN	J 660336.90918

026710  
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EXAMINER

KAM, C

ART UNIT

PAPER NUMBER

1653

DATE MAILED:

07/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/669,418

Applicant(s)

DULEBOHN ET AL.

Examiner

Chih-Min Kam

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Informalities*

The disclosure is objected to because of the following informalities:

1. At page 5, lines 23, 25 and 26, the terms "lysine:mg:malic:citric", "1.49:1.2.16:0.72" and "lysine:ca:malic:citric" used as the composition and the molar ratio of the composition are not properly stated. Appropriate correction is required. For example, the term "lysine:magnesium:malic acid:citric acid" is suggested.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph.

Claims 1-13 are rejected because the specification, while being enabling for a method of reducing photooxidation or air oxidation in a food product comprising the step of dispersing within the product an antioxidation composition comprising an amino acid such as lysine, a metal ion such as CaO, MgO or ZnO, and a carboxylic acid such as malic acid, citric acid or succinic acid, does not reasonably provide enablement for a method of reducing photooxidation or air oxidation in any product comprising the step of dispersing within the product an antioxidation composition comprising any amino acid, any metal ion, and any organic acid. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

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Claims 1-13 are drawn to encompass a method of reducing photooxidation or air oxidation in a product comprising the step of dispersing within the product an antioxidation composition comprising an amino acid, a metal ion, and an organic acid (claims 1-5), within a product of food, plastics, flowers or paper (claim 6), within a product of milk (claims 8 and 9), within a product of white chocolate (claims 10 and 11) or within a product of plastic (claim 12 and 13), or a composition also reducing degradation of a substance (claim 7). The specification, however, only discloses cursory conclusions (page 1, line 18-page 2, line 5; page 2, line 21-page 4, line 2), which state that a method of reducing photooxidation or air oxidation in a product comprising the step of dispersing within the product an antioxidation composition comprising an amino acid, a metal ion, and an organic acid. There is no disclosure of any data indicating the method of reducing photooxidation or air oxidation in a product other than milk or white chocolate using the composition. The specification has only demonstrated a composition containing lysine, MgO or/and CaO or/and ZnO, and malic acid, citric acid or succinic acid being used for reducing photooxidation in the product, there is no composition containing other amino acids, metal ions, and carboxylic acids being described for reducing photooxidation. The specification does not indicate any composition would also reduce the degradation of a substance such as caffeine, vitamins and other items. The claims encompass enormous number of embodiments which would not be expected by the skilled artisan to accomplish the method set forth. Since it is not routine in the art to engage in *de novo* experimentation where the expectation of success is unpredictable, the skilled artisan would require additional guidance in order to make and use such peptides in a manner reasonably commensurate with the scope of the claims. Without such guidance, the experimentation left to those skilled in the art is undue.

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The factors considered in determining whether undue experimentation is required, are summarized in In re Wands (858 F2d at 731,737, 8 USPQ2d at 1400,1404 (Fed. Cir.1988)). The factors most relevant to this rejection are the scope of the claims, the nature of the invention, the working examples, unpredictability in the art, the amount of direction or guidance presented, and the amount of experimentation necessary.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8, 10 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, being indefinite because of the use of the term "at least one amino acid, at least one metal ion and at least one organic acid" or "the composition added in an amount sufficient to reduce photooxidation relative to.....the anti-oxidation composition". The term "at least one amino acid, at least one metal ion and at least one organic acid" or "the composition added in an amount sufficient to reduce photooxidation relative to.....the anti-oxidation composition" renders the claim indefinite, it is unclear in the claim how many amino acids, metal ions and organic acids are intended in the composition, or what kind of metal ion and organic acid are in the composition, or how much of the composition is added as compared to the photooxidation-susceptible material. Claims 2-8, 10 and 12-13 are included in the rejection because they are dependent on rejected claims and do not correct the deficiency of the claim from which they depend.

4. Claim 8 is indefinite because of the use of the term "0.001% and 2%". The term "0.001% and 2%" renders the claim indefinite, it is unclear whether the percentage for the level

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of the composition is expressed in weight/weight or weight/volume. The same rejection is applied to claims 9-13.

5. Claims 9 and 11 are indefinite because of the use of the term "lysine:mg:malic:citric", "1.49:1.2.16:0.72" or "lysine:ca:malic:citric". The term "lysine:mg:malic:citric", "1.49:1.2.16:0.72" or "lysine:ca:malic:citric" renders the claim indefinite, it is unclear in the claim what the molar ratio is and what kind of compounds are in the composition. Full spelled terms such as calcium or magnesium, malic acid and citric acid should be used.

**Conclusion**

6. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (703) 308-9437. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, Ph. D. can be reached on (703) 308-2923. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0294 for regular communications and (703) 308-4227 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Chih-Min Kam, Ph. D.  
Patent Examiner



KAREN COCHRANE CARLSON, PH.D  
PRIMARY EXAMINER

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July 11, 2001